Exhibit 13

Contact

www.linkedin.com/in/yang-seok-choi-53b2724 (LinkedIn)

Top Skills

PHY
MIMO
Signal Integrity

Yang-Seok Choi

Director, Principal Engineer, Wireless Architect Lead
Portland

Summary

Member of Mensa
1. Keynote Speech in FD (Full Duplex) workshop, IEEE ICC 2017, May 2017, Paris, France
2. Keynote Speech in FD workshop, IEEE PIMRC 2017, Oct 2017, Montreal, Canada
3. Distinguished Speaker on FD, IEEE Global Conference on Signal and Information Processing, Nov 2017, Montreal, Canada

Invited talks : University of British Columbia(2015), Univ. of California Riverside(2015), Seoul National Univ.(2012,2016), Seogang Univ. (2012), Oregon State Univ.(2017)

Hold 70+ issued US patents and 60+ pending

Selected Journal Publications
[1] Y.-S. Choi and H. Shirani-Mehr, "Simultaneous Transmission and Reception: Algorithm, Design and System Level Performance", IEEE Trans. on Wireless Communications, vol. 12, No. 12, pp. 5992-6010, Dec. 2013.
[2] D. Korpi, J. Tamminen, M. Turunen, T. Huusari, Y.-S. Choi, L. Anttila, S. Talwar, M. Valkama, "Full-duplex mobile device: pushing the limits", IEEE Communications Magazine 54 (9), pp. 80-87, Sep. 2016
[3] Y.-S. Choi and S. M. Alamouti, “A Pragmatic PHY Abstraction Technique for Link Adaptation and MIMO Switching”, IEEE Trans. on Selected Areas on Communications, vol. 26, No. 6, pp.960-971, Aug. 2008.
[4] Y.-S. Choi and S. M. Alamouti, "Approximate Comparative Analysis of Interference Suppression Performance between Antenna and Beam Selection Techniques", IEEE Trans. on Wireless Communications, vol. 5, No. 9, pp. 2615-2623, Sep. 2006.

[5] Y.-S. Choi, S. M. Alamouti, and V. Tarokh, "Complementary Beamforming : New Approaches", IEEE Trans. on Communications, vol.54, No. 1, pp. 41-50, Jan. 2006.
[6] A. F. Molisch, M. Z. Win, Y.-S. Choi, and J. H. Winters, "Capacity of MIMO systems with Antenna Selection", IEEE Trans. on Wireless Communications, Vol.4, No. 4, pp. 1759-1772, July 2005.
[7] Y.-S. Choi, P. J. Voltz, F. Cassara, "On channel estimation and detection for multicarrier signals in fast and frequency selective Rayleigh fading channel", IEEE Trans. on Communications, vol. 49, pp.1375-1387, Aug. 2001.

Experience

Intel Labs
Director, Wireless Signal Processing
September 2013 - Present (8 years 1 month)
Hillsboro, Oregon USA

Research on future wireless comms, sensor fusion, machine learning for wireless receiver and signal processing etc... Neural Networks (NN) application to PHY and Receiver : addressed the issues of NN which cause poor robustness, need of supervised learning, complicated on-line training etc. The research breakthrough on how to inject domain knowledge into NN paves the path for enabling NN in wireless communications. Finished POC of Channel Estimation, CQI feedback etc

fast tracking adaptive blind beamforming, Location estimation (using RSSI only), Blind co-channel interference cancellations etc...

Intel Corporation
Director of RSE, Wireless Architect Leader
2004 - September 2013 (9 years)
Hillsboro Oregon USA

PHY leader in Standards Development

AT&T Labs-Research
Sr. Technical Staff Member
2001 - 2002 (1 year)

Education

Polytechnic University
Doctor of Philosophy (Ph.D.), EE · (1997 - 2000)

Korea Advanced Institute of Science and Technology
MSEE, EE · (1990 - 1992)

Korea University
BS, EE · (1986 - 1990)